PLACES FOR MOTORISTS TO PROCEED CAUTIOUSLY

Speed Traps, Traffic Regulations and So On All Listed.

NEARBY DANGER SPOTS

With This Knowledge the Automobilist Certainly Is Forewarned.

Places where the motorist would do well to go cautiously and act circumspectly are to be found in a list made up by the touring department of the Automobile Club of America of speed traps, traffic regulations and muffler cutout ordinances. The list is this:

CONNECTICUT.

Berlin—Rigidly enforced traffic regulations.
Bridgeport—Caution. Speed.
Darien—Speed trap.
Fairfield—Caution. Speed.
Greenwich—Motorcycle officer. Speed and muffler ordinances, also ordinance requiring licenses to be hung at least eighteen inches from the ground.
Groton—Caution. Muffler cutout ordinance and ordinance requiring properly hung licenses.
Hartford—Rigidly enforced traffic regulations.
Meriden—Traffic regulations enforced.
New London—Caution. Muffler cutout law.
Noroton—Speed trap.
Norwalk—Speed trap.
Ridgefield—Traffic regulations enforced.
Rowayton—Speed trap.
Stratford—Caution. Speed.
Westbrook—Speed trap.
Winsted—Caution. Speed.

NEW JERSEY.

Atco—Speed trap in operation. Twenty-five mile limit.
Atlantic City—Speed traps increasing on both routes, in open spaces as well as in towns.
Belmar—Caution. Speed. Very strictly enforcing twelve mile limit.
Berlin—Twenty mile limit enforced.
Camden—Streets leading from ferry strictly watched. Twelve mile limit rigidly enforced.
East Orange—Motorcycle officer. Speed law rigidly enforced.
Edgewater—Enforcing twenty mile speed limit.
Egg Harbor—Speed trap.

NEW JERSEY.

Elizabeth—Motorcycle officer on Springfield avenue. Speed limit fifteen miles per hour.
Ellwood—Speed trap.
Glasboro—Several speed traps on Westville road.
Hammonton—Speed traps. Motorists bearing other than New Jersey licenses regularly held up.
Hodder Heights—Speed limit fifteen miles.
Hudson County Boulevard—Strictly enforcing twenty mile limit.
Middletown—Speed trap. Excessive fines.
Newark—Muffler cutout ordinance. Strict fifteen mile limit.
New Brunswick—Caution. Speed.
Orange—Caution. Speed.
Passaic—Caution. Speed.
Paulsboro—Caution. Speed.
Pemberton—Strict twelve mile limit.
Pleasantville—Fifteen mile limit.
Pomona—Fifteen mile limit.
Somerville—Caution. Cutout.
South Orange—Caution. Speed. Motorcycle officer.
Toms River—Speed trap operated on Sundays.
West Orange—Caution. Speed. Motorcycle officer.
Westville—Rigidly enforced twelve mile limit.
Woodbury—Speed limit twelve miles being enforced.

NEW YORK.

Albany—Muffler cutout ordinance.
Amsterdam—Speed trap. Fifteen mile limit.
Auburn—Muffler cutout ordinance.
Binghamton—Caution. Speed limit fifteen miles per hour.
Briarcliff—Motorcycle officer in vicinity.
Bronxville—Speed trap Saturdays, Sundays and Mondays. Caution. Muffler cutout.
Buffalo—Rigidly enforcing speed laws.
Canandaigua—Motorcycle officer at this place. Strenuously enforcing speed laws on road between Free Bridge and Cayuga.
Cohoes—Speed trap.
Fishkill Landing—Speed ordinance rigidly enforced.
Gloversville—Speed trap. Fifteen mile limit. Also smoke and cutout ordinances enforced.
Grand Concourse—Motorcycle patrol.
Harrison—Motorcycle officer.
Homer—Caution. Speed.
Larchmont—Speed trap operated on Sundays.
Mamaroneck Village—Caution. Speed.
New Hartford—Fifteen mile speed limit strictly enforced.
Norwich—Traffic regulations strictly enforced.
Nyack—Speed trap on top of Main street.
Oneonta—Speed limit fifteen miles enforced.
Ossining—Rigidly enforcing speed and cutout ordinances.
Palatine Bridge—Speed limit fifteen miles enforced.
Poughkeepsie—Caution. Speed trap.
Red Hook—Speed trap.
Rochester—Caution. Acetylene lights and cutout.
Rye—Motorcycle officer enforcing speed laws.
St. Johnsville—Fifteen mile speed limit enforced.
Schenectady—Caution. Speed traps and muffler cutouts.
Sherburne—Speed trap on Main street.
Sheridan—Caution. Speed trap.
Suffern—Speed trap on Stoatsburg road.
Syracuse—Caution. Speed traps and cutouts.
Utica—Cutout ordinance and lights on vehicles at night being enforced.
Vernon—Enforcing fifteen mile speed limit.
Wempsville—Speed trap.
Watertown—Speed trap on road from Cato.
Yonkers—Speed and cutout ordinances strictly enforced.

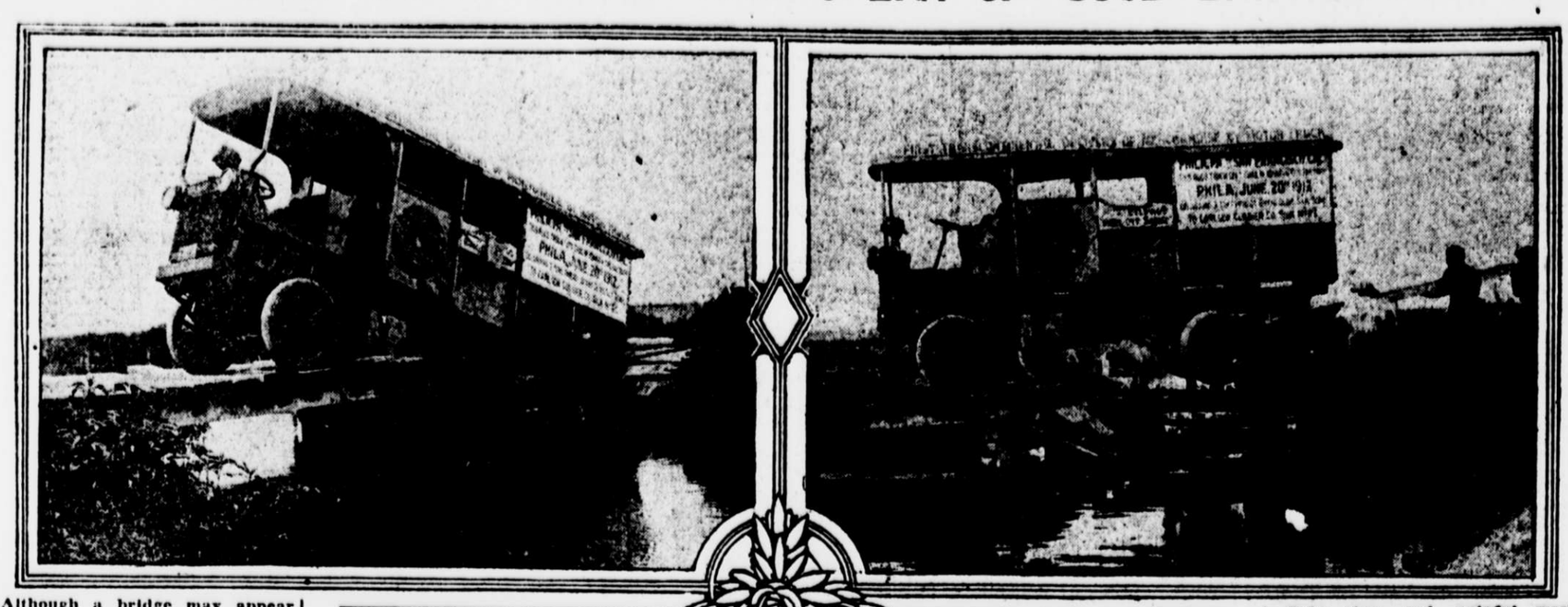
LONG ISLAND.

Babylon—Caution. Muffler cut out ordinance.
Bullshead Corners—Motorcycle officer between Roslyn and East Norwich.
Glen Cove—Caution. Cutout.
Hempstead—Motorcycle officer on Jerusalem avenue. Warrants issued by justice of peace at Freeport.
Huntington—Caution. Cutout prohibited on Sundays only.
Lawrence—Caution. Lights. Very poor roads and lights easily jarred out. Officer very alert and fines $5.
Long Beach—Caution. Cutout.
Northport—Cutout ordinance.
Oyster Bay—Caution. Cutout.
Patchogue—Caution. Cutout.
Sea Cliff—Caution. Cutout.
Southampton—Caution. Cutout.

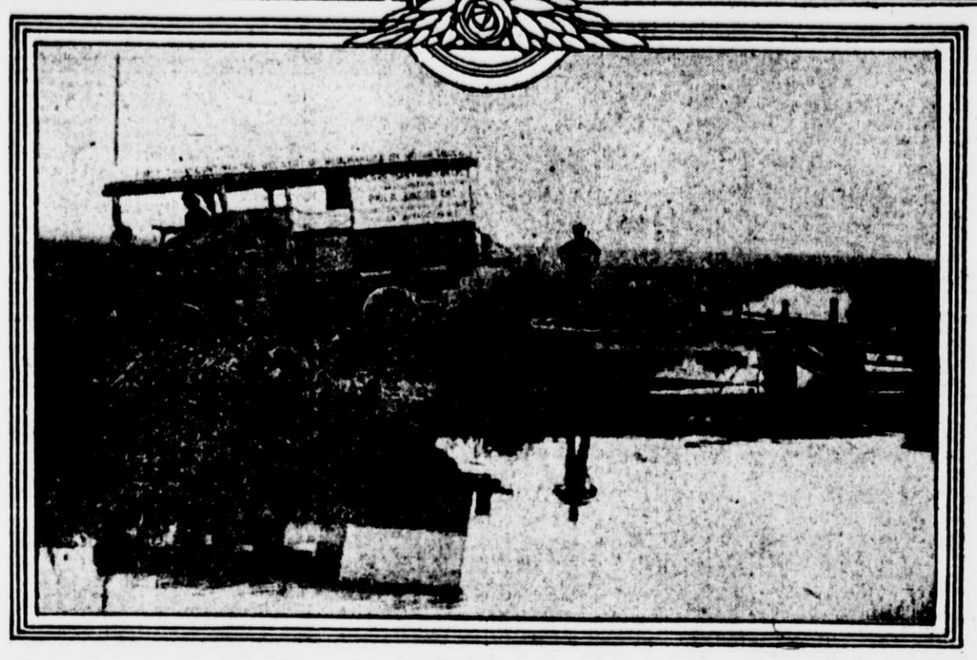
PENNSYLVANIA.

Abington—Caution. Speed trap.
Bristol—Speed trap on Edgewater road.
Bryn Mawr—Strict twelve mile limit.
Cheltenham—Caution. Muffler cutout.
Chester—Speed trap on Chester Pike.
Darby—Speed traps on Chester Pike and on Parker avenue.
Glenlock—Caution. Speed trap. Horn blowing.
Elizabethtown—Caution. Speed and horn traps.
Easington—Speed traps and strict regulations regarding passing trolley cars standing.
Hulmeville—Speed trap between this place and Oxford Valley crossroad.
Lancaster—Speed trap.
Langhorne—Speed trap Saturdays and Sundays in town. Other days anywhere in township.
Lewiston—Rigidly enforcing twelve mile limit.
Llanerch—Speed trap.
Malvern—Speed trap.
Middle Township—Speed trap.
Moores—Speed trap.
Myerstown—Speed trap. Horn trap.
Morristown—Speed limit seventeen miles. Strictly enforcing law against passing standing trolleys.
Ogontz—Strict twelve mile limit on York road, also use caution passing trolleys.
Overbrook—Speed trap.
Philadelphia—In all villages and towns near Philadelphia care should be used not to pass trolley cars standing. Caution against going too fast and horns should be blown when necessary. Smoking exhaust, chains and cutout prohibited in Fairmount Park.
Pittsburg—Caution. Speed traps. Cutout. The boroughs of Bellevue, Sewickley, Bridgeville, Washington and New Castle enforcing twelve mile speed limit and cutout ordinances.
Reading—Rigidly enforcing twelve mile limit.
Upper Darby—Caution. Speed and horn ordinances.
Wayne—Speed and horn traps. Twelve mile limit.
West Chester Pike—Speed traps.

WIDER TRUCK TRAVEL MEANS ERA OF GOOD BRIDGES



Although a bridge may appear sound, only actual experience will prove it. The ALCO truck that is working to the Pacific Coast tried this bridge, and found it not up to a ten ton load. Looks nearly inextricable, doesn't it?



Released at last! The truck is ready to go on its way, leaving a sturdy enough bridge behind. The next who come that way will hardly break through, but wood isn't up to the requirement. What the progress of this ALCO truck from coast to coast has shown, among other things, is the need of sound, firm bridges. Enormous weights they are called on to bear are too much for old style wooden structures.

Only slow and painful work achieved the liberation of the truck from the depths. Jacking up and then inserting heavy timbers was kept up until eventually the hind end of the truck came level with the road line again.

OFFENSIVE SIGNBOARDS STILL MAR THE ROADS

Year Old State Law Has Had Small Effect in Cleaning Up.

ENGLAND TOO OBJECTS

Britons Find Much to Displease the Eye of the Tourist.

It was just a year ago that a law went into effect in this State which entitled persons to remove from along the highways advertising signs which did not stand on private property. The defacement of the roads and spoiling of scenery by the enormous and growing quantity of advertising signboards was the reason underlying this. For a time a more or less active campaign was waged by a few citizens, who sent out motor trucks and automobiles with wrecking crews to strip down signs wherever they could find them that stood on public property.

If there has been much activity of late in the State the results have not been very easy to see. Along the roads almost everywhere there are a great many signs which legally have no right to be. Of course the main thing is that almost all the large signs which are the more offensive ones are on leased property and cannot be taken down.

In England a measure proposed to tax advertising boards alongside railways has led to a suggestion that the advertisements might be removed altogether, and if that were the case with railroads it might well be the same with highways.

"The extent to which our main highways all the country over are now defaced and defiled by huge and hideous announcements of rival motor spirits, oils and tires is past all bearing," says *Truth*. "The tire advertisements are particularly loathsome for that matter, even delusive as well, for when one does happen to be forced by necessity to call at the address indicated as that of a local vendor of this or that tire it is no uncommon experience that he has not the right size in stock and merely offers to get one down from London. Small consolation this to the man in a hurry to reach London or to get as far away from it as possible.

"These unsightly boards, moreover, are quite superfluous, as most car owners carry the handbook of their club or association, containing lists of garages and repairers, and any tire manufacturer will supply a full list of his own 'stockists,' throughout the kingdom.

"An effective method of attaining publicity, and in a non-offensive manner is adopted by Michelin in France. At the entrance to hundreds of French villages one may note a sign, not objectionable as to size, on which are inscribed the words, 'Veuillez vous ralentir,' followed by the name of the place itself and the further inscription, 'Attention aux enfants,' or sometimes 'aux caniveaux.' At the other end of the village another sign may be seen bearing the word 'Merci' in large letters.

"The Michelin name, of course, also appears on the signs, which is only natural in consideration of the fact that the expense of erecting these useful warnings and ready means of identifying the place had been borne by the firm, but no one who has seen these announcements will dispute the fact that they are very different things from the type of sign board which is only too familiar on English roads."

36,580 OVERLAND CONTRACTS.

Dealers Have Increased Orders Largely, Says Bennett.

In view of having received contracts from dealers for 36,580 cars the Willys-Overland organization may be excused for believing that this is to be the biggest year in motor car history since the automobile entered this country.

"We know at least," says Vice-President George W. Bennett, "that it is going to be a bonanza year for the Overland company and there is no doubt that the number of machines contracted for will readily increase to 50,000 cars.

"Every State in the Union is taking from 25 to 100 per cent. more Overlands than last year. These contracts cover nearly every civilized country and nearly every State in the United States. San Francisco has contracted for 3,000 cars. New York city, Minneapolis, Kansas City and Philadelphia will take 1,500 each and New England will take 1,500. Iowa will consume 2,500 Overlands."

VINCENT A PACKARD MAN.

Former Hudson Engineer Goes to Another Detroit Factory.

J. G. Vincent has become chief engineer of the Packard Motor Company. He is the executive head of the engineering corps. Mr. Vincent was formerly chief engineer with the Hudson and also at one time superintendent of invention with the Burroughs Adding Machine Company.

Russell Huff, consulting engineer, and C. J. More, manufacturing engineer, who have been with the Packard company since its first model was brought out, will constitute an advisory body with supervision over all Packard engineering work.

De Bear Now With Everitt.

Harry J. De Bear has become affiliated with the Flanders Manufacturing Company at 1952 Broadway, Eastern distributors of the Everitt cars. Mr. De Bear has been with several of the large automobile concerns and made his recent change to sell Everitt cars under L. W. Bitting, sales manager of the Flanders Manufacturing Company, to whom Mr. De Bear has been assistant for the past couple of seasons. Mr. Bitting has also engaged E. L. McLaughlin.

CASTOR OIL FOR CARS NO FAVORED LUBRICANT

Expensive and Leaves a Great Deal of Carbon Deposit.

MUCH CLEANING NEEDED

Rotary Motors, as in Aeroplanes, Take Care of All This Automatically.

The use of castor oil as a lubricant for automobile engines, suggested of course by its successful employment in the case of certain aeroplane motors, has been discussed and tested recently in England. The results of the tets are not such as to lead to the belief that castor oil will ever supplant the customary mineral oils for motor lubrication. It is not only on the strength of cost, because castor oil would probably figure out about 90 cents a gallon as compared to the best mineral oil, which costs about 75 cents a gallon, but there is no apparent reason for believing that it is practicable for an automobile engine.

Tests made with a car run with castor oil at the same time with others that were run with various degrees of mineral oils for a distance in each case of a thousand miles gave unfavorable results. Each one of the pistons had a thick deposit on top, and although the rings were qutte free and well lubricated the cylinder heads had a hard deposit on the valve caps more than with any other oil. The valve pockets also contained an exceptional amount of carbon.

The carbon deposit from the castor oil was much greater even than with a very low grade heavy body mineral oil. The total weight of it was nearly three times that left by the best grade of pure mineral oil, and where mineral oil of the average quality was used the ratio of deposit was 9.54 grammes to 14.08 grammes left by the castor oil.

The chemist making the test said: "In my opinion castor oil can be only used in fixed cylinders with impunity for short distances and then with repeated cleanings between runs. The reason is that one cannot consistently use castor oil over and over again, for the fact is indisputable that it has a far greater tendency than mineral oils to absorb oxygen, and so gradually to increase in body and finally to gum.

"When once it commences to gum the carbonization becomes more rapid because the thickened and pitch like oil acts as an insulated covering on the tops of the pistons and of the cylinder and cannot get away with sufficient rapidity to avoid decomposition and baking to a coke. Therefore, if castor oil is to be used on the ordinary stationary cylinder type of engine, it is necessary to wash out the crank chamber and to replace with fresh oil at frequent intervals.

"On a rotary engine this cleaning is unnecessary, because there is a continual stream of fresh castor oil brought into the crank chambers and then thrown by centrifugal force past the pistons and through the cylinder into the exhaust. Thus the stream of oil never has sufficient time to oxidize fully, gum or decompose. This action of centrifugal force accounts for the large consumption of oil on the rotary engine and also for the fact that the pistons and cylinders keep comparatively clean."

The conclusion is that although castor oil is an excellent lubricant it does not do for the average automobile engine. However, it maintains its viscosity remarkably at high temperatures and has a tendency to creep and spread uniformly over the whole of the metallic surfaces at this high temperature, where under the same conditions a mineral oil of the like body would be unevenly distributed. Another point is that the specific heat of castor oil is higher than that of a pure mineral oil, and thus it is a better heat remover than the average mineral oil.

Some automobilists believe that they have made use of castor oil for lubricating purposes very successfully, but this chemist says that they have been deluded by a prepared oil giving the impression that it was refined castor oil or had some relationship to it when it was actually a refined mineral oil, free from any traces of castor oil. Therefore the results they obtained are not necessarily to be much relied on.

CADILLAC AGAIN THREATENS.

Will Leave Detroit if Land Plans Don't Go Through.

Once more the story has revived that the Cadillac Motor Car Company threatens to leave Detroit. On this occasion the report has good authority for it. The Cadillac company is anxious to get certain land adjoining its present Detroit property, but because of opposition to the proposal it threatens now to move its whole plant to some other city if the Detroit authorities persist in the opposition.

"Four cities are under consideration now," says W. C. Leland, manager of the company, "one of which will be selected. We have had hundreds of applications from as many cities, but the choice has resolved itself into a question of one of these four. Each of them is outside of the State of Michigan. It will be impossible for the company to continue working under the present handicaps of insufficient shipping facilities and lack of room."

TIME LIMIT ON ROAD WORK.

Highway Superintendent Puts in Operation New Plan.

The State Superintendent of Highways of New York has formulated a plan for putting a time limit on contractors building State roads. The general outline of the plan provides that in case of failure on the part of the contractor to complete the work within the time specified the State will relet the contract to another contractor, and should the cost exceed the amount of the first award the original contractor or his bondsman will be compelled to make up the difference to the State.

By this means, it is believed, contractors will be deterred from taking up more jobs than they have a chance of finishing in the designated time limit.

Building New Wing to Hudson Plant

A new addition to the factory of the Hudson Motor Car Company is now in course of being built. The new structure is to be 500 feet long, 63 feet wide and two stories tall. In the two years that the company has occupied its new plant it has been necessary annually to add about 60,000 square feet of floor space to take care of increased demands.

COLUMBIA HAS SCHOOL FOR HIGHWAY BUILDERS

Winter Courses Given to Perfect Engineers in Their Work.

TO FILL IN SLACK TIME

Easy to Get Leave of Absence When Roads Are Not Workable.

Typical of the growing interest in highway engineering and problems of road construction is the establishment of a department of highway engineering at Columbia University. The courses given are designed for graduates in civil engineering and the sessions run from December to March inclusive, being so arranged to permit of the highway engineers being readily able to get leave of absence in the winter slack time. The intention of the department is to fit men by special training for places which have been created because of the marked movement for the bettering of highways.

Such places are in the following fields: The highway departments of municipalities and towns, those of States, counties and parks; the engineering organizations of contractors and the engineering and sales departments of companies dealing in materials and machinery used in highway work.

The courses of instruction are planned so as to deal with the subjects only from the standpoint of the highway engineer and the content of the courses is broad enough to cover all phases of highway engineering. Instruction is given by means of lectures, in which the theoretical and practical sides of the subject and its bibliography are set forth.

Besides the lectures in course there are lectures on special subjects delivered by non-residents. Numbered among these are John A. Bensel, State Engineer of New York; Walter W. Crosby, chief engineer of the Maryland State Roads Commission; A. W. Dow, chemical and consulting paving engineer of New York city; Walter H. Fulweiler, chief chemist of the United Gas Improvement Company of Philadelphia; John M. Goodell, editor in chief of the *Engineering Record* of New York city; Nelson P. Lewis, chief engineer of the Board of Estimate and Apportionment of New York city; Logan W. Page, director of the United States office of public roads of Washington, D. C.; Harold Parker, chairman of the Massachusetts Highway Commission of Boston, Mass.; Charles P. Price, manager of the American Tar Company of Malden, Mass.; H. B. Pullar, chief chemist of the American Asphaltum and Rubber Company of Chicago, Ill.; John R. Rablin, chief engineer of the Massachusetts Metropolitan Park Commission of Boston, Mass.; Clifford Richardson, consulting engineer of New York city; Philip P. Sharples, chief chemist of the Barrett Manufacturing Company of Boston, Mass.; Francis P. Smith, chemical and consulting paving engineer of New York city; Albert Sommer, consulting chemist of New York city; George W. Tillson, consulting engineer of the Borough of Brooklyn, New York city.

An idea of the scope of the highway engineering department is given by this schedule:

FIRST SESSION.

Highway Engineering 101—Economics and design of roads and pavements.
Highway Engineering 103—Bituminous surfaces and bituminous pavements.
Highway Engineering 105—Highway bridges and culverts.
Highway Engineering 107—Mechanical appliances used in highway engineering.
Highway Engineering 109—Road surveying and design.
Highway Engineering 111—Seminar in highway engineering literature.
Chemistry H199—Chemistry of bituminous materials.
Geology H215—Engineering geology.

SECOND SESSION.

Highway Engineering 102—Macadam and other roads; block and concrete pavements.
Highway Engineering 104—Highway laws and systems of administration.
Highway Engineering 106—Management engineering.
Highway Engineering 108—Road material laboratory.
Highway Engineering 110—Street surveying and design.
Highway Engineering 112—Seminar in highway engineering literature.
Chemistry H200—Chemistry of bituminous materials, laboratory course.
Geology H216—Lithology and petrology.
Mineralogy H214—Optical mineralogy.

RESPECTS OUR CARS NOW, DOES MONTAGU

British Motor Editor Says He Learned Many Things Over Here.

"LET COVENTRY WAKE UP"

Time for English Makers to Go After Man of Moderate Means.

The remarks that have been made by British motoring men on the subject of the supposed American dump of inferior and unsalable cars on the British market did not attract so much attention in this country, chiefly because it is realized that the British have always taken opportunities to say unkind things about American automobiles, the more so now that American competition with British manufacturers has become all the stronger.

However, not all the folks in the automobile industry on the other side feel that the only course to pursue is to attack American goods. Lord Montagu, editor of the *Car*, who has just returned to England from an extended trip on this side, has this to say:

"I have learned—and I am not ashamed to confess it—to respect the American made motor car more than I did before. I thought it a cheap, useful but somewhat second rate production. I found it in its expensive forms better than I could have believed and in its cheap form better value for money than I thought possible.

"A country like the United States, which possesses 717,000 motor cars, and Canada, which can add at least 30,000 more to this total, must have had jointly a good deal of experience in motor car construction and use. And my readers will believe me when I say with reason, 'Let Coventry wake up' and urge upon manufacturers the desirability of making cheap and good cars and of studying the man of very moderate means."

Further testimony is given also by R. W. A. Brewer of the Institute of Automobile Engineers, who represented England at the recent meeting of the Society of Automobile Engineers in Detroit. He explained that cars could be manufactured cheaper in this country because "the men working in our factories were not hampered by trade unionism and any man could be trained in a few weeks to do a certain job and do that work only, irrespective of having served any apprenticeship or being under the jurisdiction of any trade union."

"I saw one factory," said Mr. Brewer, "where fifty men were employed merely in putting shafts in; where there were twenty men whose only work was to put pistons on engines.

"The American car is by no means the result of cheap labor or of cheap material, for the cars are of excellent quality. It is the result of the protection in America of its motor car industry. On account of the American tariff hardly any cars are imported. Thus America has the industry to herself, and with her own markets protected she can produce for the world.

"What are we to do? Undoubtedly the first thing is to encourage the British manufacturers. A 45 per cent. ad valorem duty would be sufficient to check the flood of American light cars. Then if there were a big combination of interests working on the American plan in the cheap car business we might recapture some trade."

BUILDERS NOW MAKING TRUCKS' WEIGHT GREATER

Deductions From Examination of 400 Models Made by E. S. Foljambe.

There has been an increase in the weight of all sizes of trucks, thus indicating that in the judgment of the manufacturers the trucks of 1911 were too light, said E. S. Foljambe of the *Commercial Car Journal* in a paper read before the Philadelphia branch of the Society of Automobile Engineers. The largest increase is in the 1,000 pound trucks, the average weight being 2,620 pounds for 1912, an average increase of 736 pounds. The weights of the other sizes have increased from 100 to 200 pounds. There is also a noticeable increase in the rear overhang of all the models, five ton trucks increasing from 28 inches to 75 inches.

The facts presented to the engineers were from specifications and data taken from 428 different models, representing 178 different American makers. The information covered 1911 and 1912 and showed that the most popular sized truck is now the one ton type, represented by 16 per cent. of all the trucks listed by the makers.

From curves of speed plotted from these data it is found that there has been a drop in the speeds, as recommended by the makers, of about one to one and a half miles an hour on all models between 1,500 pounds and four tons capacity, the speeds recommended for the small trucks and the large trucks remaining practically the same as in 1911. But even the 1912 speeds are from two to three miles an hour higher than those recommended by the National Association of Automobile Manufacturers. The speeds of the smaller trucks are increasing and not decreasing, this being due to the growing use of pneumatic tires.

In this connection the figures show that there has been a remarkable increase in the use of pneumatics on the 1,500 pound models; namely, from 11.2 per cent. last year to 50 per cent. in 1912; in other words one-half of the 1,500 pound models are now fitted with pneumatic tires.

Engine location is still a mooted question. Foreign practice favors the position under the hood; American practice has favored a position under the seat or floor boards. The present figures show that this is not now standard American practice. Mr. Foljambe exhibited a curve of engine location which showed conclusively that there has been a decrease in the under the seat location of the motor on all the smaller capacity machines, including everything up to one ton. On the one and a half to three ton models there has been practically no change. On the four and five ton trucks there has been an increase in the under the seat location.

Stutz Race Team Does Well

The STUTZ pair of race drivers, MERZ and ANDERSON, had things easy enough at Elgin in the 203 mile contest for the Illinois trophy. MERZ won, doing the course in 184 minutes. ANDERSON was second.

Newcomer to Automobile Row

WALLY OWEN, who is to be New York branch manager for the HENDERSON car, made a trip recently to Indianapolis to look over the new machine. Here he is at the wheel of one of the first turned out, about to depart on a testing trip.